

Castlemaine Naturalist

May 2011

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Silver Banksia – *Banksia marginata* at Anglesea

Photo - Noel Young

A Book Review by Chris Timewell

Bringing Back the Bush: The Bradley Method of Bush Regeneration (2002). By Joan Bradley. New Holland Publishers (Australia) Pty Ltd, Sydney. (108 pages)

The late Bradley sisters, Joan and Eileen, began undertaking 'bush' regeneration as interested amateurs back in the early 1960s within relatively small degraded reserves near their home in greater Sydney. Over time, through trial and error, they refined their methods towards one which they believed was the most effective and cheapest way of restoring native vegetation from a degraded state to high quality condition in the medium to long-term. They acknowledged that their method was more labour intensive in the short-term, but strongly believed that the longer term gain more than compensated for this initial extra effort and care. They had been compiling and refining written notes on their method for many years, with the aim of eventually publishing a definitive account. Unfortunately both passed away before it was completed. However, through friends and the many converts to their method whom they had accumulated over the years, the task of editing, refining and publishing their writings into this book was accomplished.

I found it to be a relatively easy book to read and understand, although some of the complicated diagrams often hindered rather than aided this understanding. In general, the techniques described within this book are presented in a way that can be readily digested and implemented. Although the examples used largely centred on the greater Sydney area – that is, many of the weed species described are not such a significant issue in Victoria (e.g. Lantana, Camphor Laurel) - the principles remain pertinent to all terrestrial locations evident by the number of accounts from organizations from across Australia and internationally which promote the methods in this book on their websites.

The Bradley method does not focus upon the objective of removing weeds at all costs; instead, the core objective is to enhance the positive conditions for the

indigenous plants that are already present at a site allowing them to thrive and expand, and subsequently repel future weed risks. Weed removal is acknowledged as important, but it is stressed that weed removal should be undertaken in a manner which both does not harm existing native plants and also does not create conditions suitable for future weed invasions. To achieve the core objective, the three basic principles of the Bradley method are:

1. Work outwards from the good areas of bush towards areas dominated by weed.
2. Make minimal disturbance to the natural environment. This applies to both the above ground canopy of native plants and their roots. It also applies to the soil and 'mulch' layer as well, as new and existing weeds will more readily establish in disturbed ground compared to relatively undisturbed areas.
3. Do not over-clear weeds from an area too quickly. That is, let the rate of native plant regeneration dictate the rate of weed removal.

Each of these three principles is described in detail in the book along with a breakdown of the rules for their implementation. Some rules are common-sense (e.g., avoid or minimize trampling over native plants when removing the weeds). Some of the rules were not so obvious but made sense after explanation and examples (e.g., remove all non-native plant species from your working area at the same time, not just those species that appear to dominant weed issue). Other rules will raise eyebrows (e.g., using the biomass of removed weed species as mulch for the native plants that remain).

Some of the other interesting aspects of the book include the disdain for most control burn programs, the importance placed on getting to know and identify the native and introduced plants in your area (and only pulling out the ones that you have confirmed as being non-native, and leaving intact those for which you are uncertain), the focus on supporting regeneration only without the need to supplement this with the planting of any native tubestock or seeds and the method's almost total reliance upon physical techniques of weed removal. Interestingly, the friends and colleagues who compiled the book included a footnote suggesting that there are some situations where the careful and appropriate use of chemicals is most effective, which is contrary to the Bradley sisters' strict adherence to chemical-free weed management.

On a small scale, I can see how the Bradley method would work. Across my small suburban Castlemaine property, I had been indiscriminately pulling out patches of Ribwort (*Plantago lanceolata*) from the lawn, which frustratingly only seemed to stimulate its occurrence and result in more extensive and abundant patches of Ribwort than had been there previously. Since reading this book, I can see how the disturbed areas of soil that I had created through its removal provided a perfect platform for further invasion. Subsequently, I have been largely ignoring the dense patches of Ribwort and have instead begun a process of carefully removing scattered individual plants of Couch (*Cynodon dactylon*), Ribwort and other non-native ground-layer plants from within and immediately surrounding the patches of native Wallaby Grass (*Austrodanthonia* sp.) that occur through the lawn areas. Although it's still early days, the results so far are encouraging.

While I agree in principle with the Bradley method of focusing first on the best areas of native vegetation before tackling the worst weed infested areas, I would find it hard to argue that there is not still a place for minimizing the volume of seeds and fruit that are produced and spread from within the worst weed-affected areas. I also think that there is still an important place for controlling new and emerging weed species at an early stage before they spread and establish themselves uncontrollably within an area. And, for those living out of town on larger properties who are trying to restore natural ecosystems, it would almost certainly become a point of contention with your neighbours, and indeed could be considered illegal by authorities, if you were considered to be 'not managing' noxious weeds on your property as a result of following the Bradley method.

Overall, I found *Bringing Back the Bush* to be a fascinating book, which challenged and changed many of my ideas on weed control and vegetation management. It has altered the way that I think about some of the native vegetation remnants in our local area, such as at the Castlemaine Botanic Gardens, and what might be the best approach to manage these areas into the future. While I do not believe that the Bradley method needs to be fully embraced in each and every regeneration situation, I do consider that there will be at least some of their rules and principles which will be applicable and beneficial to any attempts at bush regeneration in our local area.

The following article appeared recently in ECOS 159, (CSIRO publishing)

Six birds missing, presumed extinct

Australia has lost 25 per cent more birds than previously thought, according to a recent research review.

The six 'missing' birds are the white-breasted white-eye from Norfolk Island, whose disappearance was caused by rat predation; the western Victorian form of the pied currawong and the hooded robin from the Tiwi Islands, both decimated by changes in fire management practices; the thick-billed grasswren from Alice Springs and the southern form of the star finch that once occurred from Townsville to northern NSW, which were both affected by overgrazing; and the spotted quail-thrush from the Mt Lofty Ranges in South Australia, which was driven to probable extinction by habitat fragmentation.

'It's a tragedy we might have prevented, had only we realised how scarce these birds were,¹ says Professor Stephen Garnett from Charles Darwin University, who led the study.

'We were worried about these birds when we last reviewed their status ten years ago. Sadly, despite concerted efforts, no sign of these birds has turned up in the past decade.'

The grasswren and the currawong probably disappeared in the early 20th century, he says, but all of the others were alive in the 1980s. The robin and finch were last seen in the early 1990s, when large-scale surveys highlighted the need for urgent action to save threatened species.

SEANA Autumn camp at Anglesea

– continued from the April newsletter

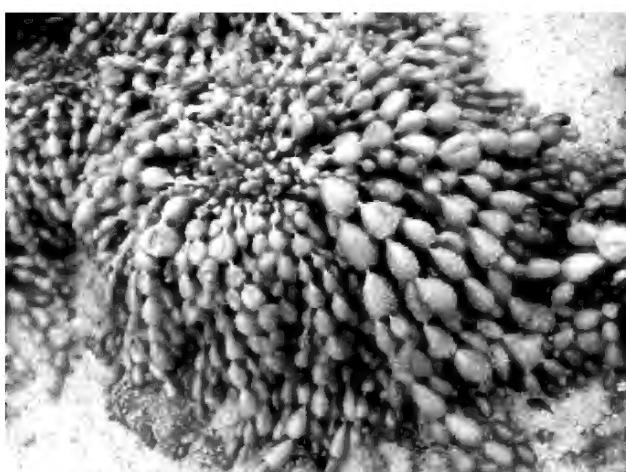
Geraldine Harris

On Sunday we chose to go on the Orchid excursion in the morning and were fortunate to see a variety of orchids including Bearded Midge Orchids (*Corunastylis morrisii*), Fringed Midge Orchids (*C ciliata*), Brown-tipped Greenhoods (*Pterostylis sp aff parviflora*), Parsons Bands (*Eriochilus cucullatus*) and Tall Bird Orchids (*Chiloglottis trilabia*). In the afternoon we walked along Ixodia Track and saw more interesting plants including Anglesea Grey-gum (*Eucalyptus litoralis*), Winged Spyridium (*Spyridium vexilliferum* var *vexilliferum*), Matted Bog-sedge (*Schoenus breviculmis*), Brown Stringybark (*Eucalyptus baxterii*), Tassel Rope-rush (*Hypolaena fastigiata*) and of course Ixodia (*Ixodia achillaeoides* subsp *alata*).

Our walk in the Ironbark Basin on Monday included a visit to the ruins of an old Jarosite Mine and an opportunity to revisit some of the many interesting plants of the area along the way. After lunch in the sunshine looking out over the sea at Point Addis we all headed home after a most informative and enjoyable Camp.

CORRECTION to April Newsletter: SEANA Autumn Camp at Anglesea
(p2, paragraph 4)

“Both of these plants (Coastal Tee-tree and Coastal Wattle) are considered environmental weeds in the Anglesea Heathland and should not occur beyond 100 metres from the beach or west of Torquay.”



Fossicking in the rock pools at Aireys Inlet (left)

Above left: Neptune's Necklace (*Hormosira banksii*)

Above right: Mermaid's Fan (*Padina fraseri*)



Tall Bird Orchid (*Chiloglottis triloba*)

Bearded Midge Orchid (*Corunastylis morrisii*)
Orchid Walk, Anglesea



Fringed Midge Orchid (*Corunastylis ciliata*)



Ixodia (*Ixodia achillaeoides* subsp *alata*)
Ixodia Track, Anglesea



Winged Spyridium (*Spyridium vexilliferum*
var *vexilliferum*) Ixodia Track, Anglesea



Anglesea Grey-gum (*Eucalyptus litoralis*)
Ixodia Track, Anglesea

Sub-duck Attack!

Bill Mathews of Bendigo recently photographed this behaviour of an immature Black Duck on Crusoe Reservoir

Taking advantage of the abundance of dragonflies resting on drowned shrubs around the shore, it would make a fast approach, silent and semi-submerged, then leap up and grab an unlucky victim.



CFNC website re-launched

Over the previous few months, a revised club website has been under development. Although there are still a few bugs to iron out, and a few gaps to fill, it has been uploaded and is available for all to see. Some of the highlights include the identification guide for a selection of local plants, event calendars, descriptions of current and future projects, archives of the club history and also links to other ecological information. Feedback is sought from club members on any errors or suggested improvements to the site. Any club member wanting to contribute information, pictures or other content to the website is wholly encouraged to do so. Contact Chris Timewell (c_timewell@hotmail.com or 5472 1553).

Observations

- ◆ Rita found a Perrons Tree Frog living in an (unused) freezer
- ◆ Barbara Guerin has three phascogale boxes – found sugar gliders in two of them
- ◆ Debbie Worland came across six quail (sp?) together at a small puddle near the large dam on the golf course
- ◆ Colin told of finding a huge Blue tongue lizard in his sitting room in Hunter st. which, when tackled, disappeared into a hole in the couch. After it was successfully evicted, another small one was discovered.
- ◆ Chris Timewell drove around the Moolort plain west of Newstead and recommends it. Lots of waterbirds, and Frogmore swamp had lots of Pink-eared Ducks
- ◆ A **Black-fronted Dotterel** at Bells Swamp - Rita
- ◆ 16/3/11 Ian and Valda Campbell photographed a Hummingbird Hawk Moth *Macroglossum stellatarum* feeding on a tobacco plant and an autumn crocus in their garden in Froomes Road. At one time they observed between 6-10 moths feeding.
- ◆ 4/4/11 Geoff reported seeing five Noisy Friar Birds between our place in Hagues Road and Gaasch's Road – Geraldine Harris
- ◆ 20/4/11 **Swift Parrots** present at Barkers Creek - Geoff Harris
- ◆ Fan-tailed Cuckoo heard early on Anzac day – George Broadway
- ◆ Still seeing flowering Chocolate lilies, Tall Rice Flower and Bluebells late April – Rita Mills
- ◆ Nigel Harland reported seeing a **Diamond Dove** on the Sutton Grange – Faraday road.

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Programme

May 2011

Fri May 13 meeting: speaker: RICHARD RETALICK
on frog declines and recoveries

Sat May 14 field trip: Firth Park, Trentham

Sat May 21 & 22: Swift Parrot / Regent Honeyeater survey* –

*NB Sat: meet at Duke street 8.30am; Sun: meet Debbie 8.15 at the Muckleford golf course club-house entrance, Pyrenees Highway

Fri June 10: meeting: speaker: NATASHA SCHEDVIN Barking Owls

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 8.00 pm.

Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.

Business meetings - fourth Thursday of each month, except December, at Denis Hurley's; 20 Merrifield St., at 7.30 pm. All members are invited to attend.

Subscriptions for 2011

Ordinary membership: Single \$27, Family \$35

Pensioner or student: Single \$24, Family \$29

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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